

# PATENT COOPERATION TREATY

# PCT

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference <b>AZ05-283WOWW</b>	<b>FOR FURTHER ACTION</b>	See item 4 below
International application No. <b>PCT/KR2005/004166</b>	International filing date ( <i>day/month/year</i> ) <b>07 December 2005 (07.12.2005)</b>	Priority date ( <i>day/month/year</i> ) <b>08 December 2004 (08.12.2004)</b>
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237		
Applicant <b>LG ELECTRONICS INC.</b>		

1.	This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).																								
2.	This REPORT consists of a total of 4 sheets, including this cover sheet.  In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.																								
3.	<p>This report contains indications relating to the following items:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 10%; text-align: center;"><input checked="" type="checkbox"/></td> <td style="width: 40%;">Box No. I</td> <td style="width: 50%;">Basis of the report</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. II</td> <td>Priority</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. III</td> <td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. IV</td> <td>Lack of unity of invention</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Box No. V</td> <td>Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. VI</td> <td>Certain documents cited</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. VII</td> <td>Certain defects in the international application</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. VIII</td> <td>Certain observations on the international application</td> </tr> </table>	<input checked="" type="checkbox"/>	Box No. I	Basis of the report	<input type="checkbox"/>	Box No. II	Priority	<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability	<input type="checkbox"/>	Box No. IV	Lack of unity of invention	<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	<input type="checkbox"/>	Box No. VI	Certain documents cited	<input type="checkbox"/>	Box No. VII	Certain defects in the international application	<input type="checkbox"/>	Box No. VIII	Certain observations on the international application
<input checked="" type="checkbox"/>	Box No. I	Basis of the report																							
<input type="checkbox"/>	Box No. II	Priority																							
<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability																							
<input type="checkbox"/>	Box No. IV	Lack of unity of invention																							
<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement																							
<input type="checkbox"/>	Box No. VI	Certain documents cited																							
<input type="checkbox"/>	Box No. VII	Certain defects in the international application																							
<input type="checkbox"/>	Box No. VIII	Certain observations on the international application																							
4.	The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).																								

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland  Facsimile No. +41 22 338 82 70	<table style="width: 100%; border: none;"> <tr> <td style="width: 100%;">Date of issuance of this report <b>13 June 2007 (13.06.2007)</b></td> </tr> <tr> <td>Authorized officer  <b>Philippe Becamel</b>  e-mail: pt12.pct@wipo.int</td> </tr> </table>	Date of issuance of this report <b>13 June 2007 (13.06.2007)</b>	Authorized officer  <b>Philippe Becamel</b>  e-mail: pt12.pct@wipo.int
Date of issuance of this report <b>13 June 2007 (13.06.2007)</b>			
Authorized officer  <b>Philippe Becamel</b>  e-mail: pt12.pct@wipo.int			

# PATENT COOPERATION TREATY

To:

BAHNG Hae Cheol  
KBK & ASSOCIATES  
15 th Floor Yosam Building 648-23,  
Yeoksam-dong, Kangnam-gu,  
Seoul, 135-080  
Republic of Korea

# PCT

## WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Date of mailing (day/month/year)	14 March 2006 (14.03.2006)
-------------------------------------	----------------------------

Applicant's or agent's file reference  
**AZ05-283WOWW**

**FOR FURTHER ACTION**  
See paragraph 2 below

International application No.  
**PCT/KR 2005/004166**

International filing date (day/month/year)  
**7 December 2005 (07.12.2005)**

Priority Date (day/month/year)  
**8 December 2004 (08.12.2004)**

International Patent Classification (IPC) or both national classification and IPC  
**D06F 39/12 (2006.01); H01R 13/639 (2006.01); H01R 13/74 (2006.01)**

Applicant

**LG ELECTRONICS INC.**

1. This opinion contains indications relating to the following items:

- ☒ Cont. No. I Basis of the opinion
- ☐ Cont. No. II Priority
- ☐ Cont. No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Cont. No. IV Lack of unity of invention
- ☒ Cont. No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Cont. No. VI Certain documents cited
- ☐ Cont. No. VII Certain defects in the international application
- ☐ Cont. No. VIII Certain observations on the international application

### 2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/ AT  
**Austrian Patent Office**  
Dresdner Straße 87, A-1200 Vienna  
Facsimile No. +43 / 1 / 534 24 / 535

Authorized officer  
**WININGER B.**  
Telephone No. +43 / 1 / 534 24 / 460

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/KR 2005/004166

**Continuation No. I**

**Basis of the opinion**

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed.

**Continuation No. V**

**Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Statement**

Novelty (N)	Claims 1-21	YES
	Claims ----	NO
Inventive step (IS)	Claims 6, 7, 9, 10, 17-21	YES
	Claims 1-5, 8, 11-16	NO
Industrial applicability (IA)	Claims 1-21	YES
	Claims ----	NO

**2. Citations and explanations:**

The following documents have been cited in the Search Report:

D1: US 6 089 910 A  
D2: US 5 927 836 A  
D3: EP 0 572 012 A1

Document D1 shows a connector 1 with a water-proofing packing 10 attached to the outer periphery of a housing body 2 fitting in a panel hole 31. The water-proofing packing 10 made of rubber has a packing body 11 having a passing-through hole 12, a ring-shaped groove 13 formed on the outer periphery thereof, and inner sealing portion 14 extending in a fitting direction from the vicinity of the passing-through hole 12. The ring-shaped groove 13 is fit over the inner peripheral edge of the panel wall abutting the panel hole 31.

Document D2 includes a fastener 64 which has a one-piece construction. The fastener 64 includes an outer perimeter flange 66, a lower inner flange 68 extending along the bottom edge of the fastener 64, and an upper inner flange 70, and a recessed portion 72 extending between the lower inner flange 68 and the upper inner flange 70. The fastener 64 can be snap fit into the opening. The wall recesses around the opening towards the inner side to prevent the fastener to project outside.

By reason that both documents D1 and D2 include devices for fixing a fastening member to a cabinet the skilled person would therefore regard it as a normal design option to combine the features of document D1 and D2 to solve the problem posed. Considering documents D1 and D2 the features of

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/KR 2005/004166

claims 1 - 5, 8, 11 - 16 are shown. Hence, the subject-matters of claims 1 - 5, 8, 11 - 16 do not involve an inventive step.

Document D3 embodies a body-mounted connector 10 secured to a member 13. Engaging members 10n are projecting downward from the front, but there is no circumferential groove for fastening the connector 10.

In summary it can be ascertained that the subject matters of claims 1 - 21 are new. The subject-matters of claims 6, 7, 9, 10, 17 - 21 involve an inventive step, but subject-matters of claims 1 - 5, 8, 11 - 16 do not involve an inventive step.

Industrial applicability is given.